

**WHAT IS CLAIMED IS:**

1. An organic EL display device having a display panel where a plurality of organic EL elements responsive to the display panel are arranged, comprising:

black level setting means for creating a driving command for each organic EL element, by shifting display data for each pixel relevant to an display image to be displayed on a display panel, according to a black level voltage setting level;

display data calculating means for calculating a level of estimated current which corresponds to a current which flows in the display panel, based on the display data supplied to the display panel;

panel current detecting means for detecting the panel current flowing through all pixels of the display panel;

comparing means for comparing the value of the estimated current calculated by the display data calculating means and the level of panel current for corresponding display, which is detected by the panel current detecting means, to obtain a difference; and

adjusting means for adjusting the black level voltage setting value based on a result of the comparison by the comparing means.

2. The organic EL display device according to claim 1, wherein

the display data calculating means calculates the value of an estimated current based on the current which would flow in the display panel upon ideal image data display, based on a total or average value of the display data; and

the adjusting means adjusts the black level based on a difference obtained by the comparing means.

3. The organic EL display device according to claim 1, further comprising:

environment estimating means for estimating an environment in which the organic EL display device is installed, according to a result of the comparison by the comparing means.